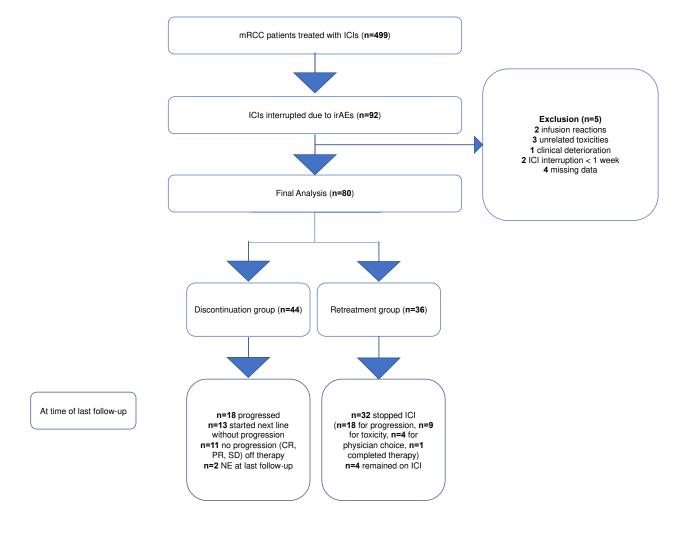
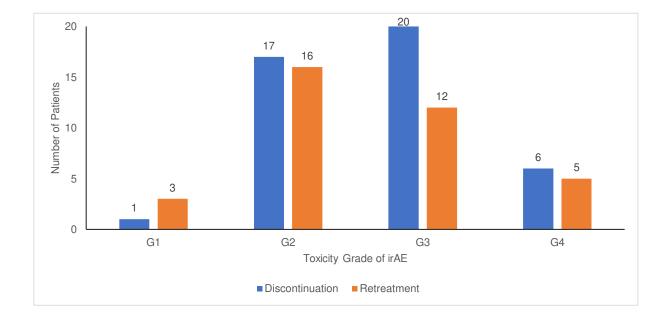


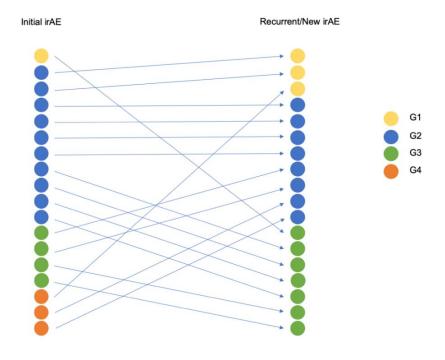
## Supplementary Figure 1: CONSORT Diagram



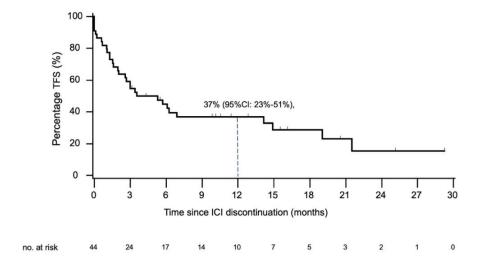
## Supplementary Figure 2: Frequency of irAEs across different grades in the discontinuation and retreatment cohorts



Supplementary Figure 3: Distribution of toxicity grades of irAEs in patients with recurrent/new irAEs in the retreatment cohort (n=18)



Supplementary Figure 4: Treatment free survival (TFS) from ICI discontinuation in the discontinuation cohort



Supplementary Table 1: Frequency of the different types of irAEs across the different grades of toxicity in the discontinuation and retreatment cohorts

	Cohort										
	Discontinuation Grade of irAE (worst)					Retreatment Grade of irAE (worst)					
Category of first irAE	G1	G2	G3	G4	Total	G1	G2	G3	G4	Total	Total
Elevated AST/ALT	0	5	5	1	11	1	3	1	0	5	16
Colitis	0	4	3	3	10	0	2	4	0	6	16
Pneumonitis	0	4	1	0	5	1	1	0	1	3	8
Skin	1	0	1	1	3	1	2	2	0	5	8
Elevated Lipase	0	0	1	1	2	0	2	0	3	5	7
Adrenal insufficiency	0	0	2	0	2	0	1	1	0	2	4
Hypophysitis	0	0	2	0	2	0	0	3	0	3	5
Nephritis	0	0	2	0	2	0	1	0	0	1	3
Arthritis	0	1	0	0	1	0	3	0	0	3	4
Encephalitis	0	0	1	0	1	0	0	0	0	0	1
Hypothyroidism	0	1	0	0	1	0	1	0	0	1	2
Myocarditis	0	0	1	0	1	0	0	0	0	0	1
Other	0	1	0	0	1	0	0	1	0	1	2
Peripheral Neuropathy	0	1	0	0	1	0	0	0	0	0	1
Polymyalgia rheumatica	0	0	1	0	1	0	0	0	0	0	1
Type 1 Diabetes	0	0	0	0	0	0	0	0	1	1	1